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ABSTRACT

Discussions of goal, process, and structure approaches for measuring library service effectiveness are reviewed and a scheme integrating these approaches is presented. Preferred ways of reviewing library effectiveness are identified for four major constituencies: staff, directors, users, and societal groups such as funding agencies. A discussion of goals as organizational intentions and as outcomes leads to a 2-part goal model: goal typology and systems model. Two figures and 38 references are provided. (RBF)

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Assessing the Effectiveness of Library Service

by

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ABSTRACT

Numerous and diverse approaches for assessing and measuring library effectiveness are discussed. Most of these approaches are shown to adopt very limited and narrow perspectives and depend upon limited performance criteria. This paper suggests a way to integrate alternative viewpoints in constructing a goal typology and systems model of library effectiveness.

INTRODUCTION

The background of this essay is from an earlier article by the authors[1] examining the literature on library effectiveness and methodically evaluating the diversity of viewpoints concerning the effectiveness construct. The purpose of this essay is to review the most significant approaches to conceptualizing effectiveness, and then to suggest a scheme whereby these approaches can be integrated into one cohesive perspective of the effective library.

An introductory review of the literature on library effectiveness demonstrates that there is a notable lack of agreement on what the concept of effectiveness means. This lack of a coherent conceptualization of effectiveness is reflected in the current disarray of research on the topic. Few coherent lines of research have developed from the various theoretical views expressed. There is disagreement about *what* criteria should be examined to determine effectiveness, *who* should establish effectiveness criteria, and *how* criteria should be used in evaluating effectiveness.

What is Being Assessed?

Underlying the disagreements in conceptualization are different views of the nature of libraries. Each viewpoint implicitly or explicitly determines the assessment criteria used to define and/or determine the library's effectiveness. Three major viewpoints of the nature of libraries will be examined later as one way of exploring these different conceptualizations. First the goal approach will be examined, followed by discussions of process and structure approaches.

Goals

In examining the literature of library effectiveness, the diversity of assessment criteria quickly becomes evident. Perhaps the most often used assessment mechanism is the goal approach, whereby library effectiveness relates

to how well the library, as a rational organization, fulfills its objectives. Measuring library effectiveness becomes synonymous with measuring the degree of goal attainment. There are numerous variations on this theme in the library literature. In discussing these variations, any attempt to cite every article that mentions the word *goal* would be endless. Hence this paper will analyze only a small range of articles whose views contribute to perspective and represent trends in the literature.

One of the most useful ideas draws an essential distinction between the written statements used to identify library objectives and library performance measures used to measure specific library outputs.[2] Library objectives refer to the end result of library use (i.e., individual self-development, enjoyment, etc.), while performance measures refer to more immediate and measurable activities of the library. These conceptualizations of goals are related, but they represent different levels of analysis. Objectives are represented by basic philosophical statements of an imprecise nature, while performance criteria are specific, unique measures. An example of the latter would be the amount of exposure time of individuals to documents.[3] If the library is to achieve a balanced perspective, it is critical to be concerned with both concepts.

The writings of library analysts are permeated with the idea that libraries must have identifiable philosophical statements discussing their official mission or function in society. Various statements put out by the Standards Committees of the American Library Association talk about library goals, achieving goals, and so on, referring to "goals" in the abstract philosophical sense. However, abstract goals are by themselves imprecise. Such goal statements are usually nonspecific and nonoperational. In addition, such "mission statements" often confuse intent and end result. These handicaps render such library goals virtually useless for measuring a library's effectiveness.

Arguments listing the disadvantages of nonspecific goals were made as early as 1955,[4] and have been repeatedly sustained since then.[5] Some critics do not actually discuss goals as such, but refer to them in discussions of generalized qualitative standards developed by some library groups. The chief criticism is that such qualitative statements "become so vague, so unexceptionable, that they serve no real purpose."[6] One must therefore conclude that a library's objectives (i.e., goals) must be supplemented by specific evaluative procedures. These evaluative procedures examine such things as book collections, personnel, finance, and library use.[7] Hence, effectiveness is determined by objective analysis, comparison and the use of measurable standards. Unfortunately, some libraries have focused wholly

upon measurable standards. In these organizations the overall philosophical objectives have been supplanted by mandates for specific statistical levels of activity. However, one must identify some overriding purposes (philosophical goals) in order to justify the "value" of achieving statistical standards.

An interesting twist in defining effectiveness uses neither generalized goals nor measurement criteria, but defines a library's effectiveness in terms of "the value of the service."[8] " 'A librarian [would] be judged on the basis of how *well* he provides service.' The criterion of measurement is value received."[9] Unfortunately, "value" is a difficult notion to conceptualize. The "inconsistencies of argument [over how to assess value] are so severe that attempts seem useless."[10] The determination of which "value adding" resources one would measure is either arbitrary and/or is somehow related to the mission of the library (as represented by its abstract objectives or goals).

One conclusion to be derived from this is that neither philosophical mission goals nor performance measurement goals are by themselves of much use in measuring effectiveness. The corollary of this is that both levels of goals are essential.

If both levels of goals are necessary (ultimate goals and performance criteria), then more attention must be given to the development of both. Goals at both levels must be explicitly formulated. At the moment, statements of objectives developed by public and academic libraries are usually "not sufficiently explicit to be of direct assistance to management in the planning and decision-making process. Further analysis is required to develop an objective which is both explicit and measurable in order that library performance may be evaluated in terms of the degree of objective attainment."[11] With due consideration it is actually possible to combine ultimate goals and performance standards. With a functional perspective (focusing upon the raison d'etre of a library), at least one possibility has been suggested. The suggested measure highlights the ultimate purpose of a library as the exposure of individuals to documents of recorded human experience:

> We propose measures of performance based solely on document exposure. The exclusion of the tangential benefits that result from the existence of library facilities is partly a matter of expediency. Also, this exclusion is partly based on the notion that when the library is performing these additional services, it is not acting in its capacity as a library, which is to serve the social function of bringing together individuals and recorded experience.[12]

Such a conceptualization is helpful, and this concept has been used to build mathematical models of relationships between library documents and users.[13] But it is unsatisfying as a way of defining library effectiveness for two reasons. First, the majority of librarians are not skilled at mathematical modeling. Second, and more important, this conceptualization rather arbitrarily limits the number of variables to be considered in evaluating library performance. For instance, the model requires that all library activities be classified into those that are associated with document exposure and those that are not. The activities not directly involved with document exposure are not examined. Unfortunately, the classification is subjective and hence arbitrary. If for no other purpose than budgetary justification, it would be more meaningful to refer to a wide range of activities in assessing library effectiveness.

Although this review so far reflects the generally unsatisfactory use of goals for determining library effectiveness, we wish to make one important point absolutely clear. The useful conceptualization of library goals calls for both a systematic examination (using performance standards) of what the library is doing, as well as an examination of what it says it is trying to do (objectives and missions). Both levels of goals must be utilized. Furthermore, since the library is doing a variety of things and affecting people both within and outside the organization, no single goal at either the philosophical or measurement level is likely to provide a universal measure of effectiveness.[14] Indeed, there are quantifiable and nonquantifiable aspects of all library services, all with their own potential goals.[15] The challenge is to set priorities for such goals and corresponding measurement criteria so that they can become a useful part of evaluation procedures and ultimately assist in decision-making processes.

Processes

Another tactic that is widely used to assess library effectiveness is to measure library processes. Under the goal approach, major attention centers on purposes and/or related criteria. When using the library process concept, the main focus is the activities performed by the library staff. Assessment consists of determining how well the staff performs relative to some desired level of activity. This "level" serves as a standard, and may or may not be explicitly related to a stated goal. In essence, the center of attention is the means (activities or processes) used to provide library services rather than the ends (goals) of those services.

Many of the process measures monitor services believed to affect the ability of the library to serve the user. At the individual user level, libraries may be evaluated on the adequacy of the collection for a specific user picked at

random,[16] or the capability of the library to deliver documents to such a user.[17] Similarly, at the organizational level, libraries may be evaluated on the utilization of the collection or the variety of reference questions answered. Much recent effort has gone into developing comprehensive audit tools to review all the procedures of a library. Systematic approaches to assessment have been developed by the Association of Research Libraries (the Management Review and Analysis Program). A similar effort is being sponsored by the Public Library Association—*A Planning Process for Public Libraries*. These developments should be carefully scrutinized because they represent attempts to monitor the library's various activities as they interrelate, rather than monitor specific activities in isolation. The use of such tools promotes recognition of library subunit interdependency as a necessary condition to integrate the library's activities in the pursuit of overall goals.

It is important to emphasize one shortcoming of process measures. They evaluate conformity to a given set of activities, but as yet do not address the correctness of the activities themselves. It is assumed that there is a universal set of activities which are required to ensure effectiveness. This assumption is not readily accepted by all members of the library profession or by all users of libraries. Certainly the debate which preceded the White House Conference on Library and Information Services demonstrates that there is little agreement on the kinds of activities to include in the "universal" set.

Not only is there disagreement on which activities to evaluate, there is also disagreement in what aspects of the activities to measure. Some process approaches favor quality measures, while other process approaches only assess quantity. In addition, quantity measures are used in many situations as a surrogate for assessing the impact of service. Thus, many libraries gather and report, as indicators of effectiveness, the number of books circulated, the number of new library cards processed, or the number of books acquired. Indeed, for many libraries, such statistics are the only kinds of measures systematically collected.

Often the gathering of these statistics is an ongoing activity. This, in itself, can create a serious problem—measurement wholly for measurement's sake.

> Frequent measuring tends to encourage over-production of highly measurable items and neglect of the less measurable ones....Attributing too much importance to some indicators of organizational success and not enough to others may lead to considerable distortion of the organizational goals and undermine the very efficiency and effectiveness the organization seeks.[18]

Recognizing the shortcomings of process measures does not mean that they should be abandoned. The concept of library effectiveness can be examined through the utilization of a process approach when it is considered as part of a total systems model of library effectiveness.[19] However, the study of library processes as a series of isolated activities is an empty effort.

Structural Factors

The third major approach to measuring library effectiveness adopts the library structure as the focal point. Interest in structure is based on the perceived connection between effectiveness and organizational features of libraries (i.e., facilities, equipment, staff, fiscal resources, etc.,and in some cases how these resources are organized). For example, when accrediting agencies examine academic libraries, they equate a certain number of volumes with different levels of effectiveness. The underlying assumption is, simply put, "the more, the better." A similar position is advocated by professional associations when they insist on certain educational levels for professional staff. Such standards reflect the belief that, given the proper structural factors (enough material, highly educated staff, etc.), good library service will follow.

Emphasis on structure can be attributed, at least in part, to the desire for easily collected information about libraries. A major limitation, however, is that the relationships between structural features and effectiveness are not always clear. It is even possible that there may not be a causal relationship. It cannot be presumed that mere accumulation of certain specific resources automatically generates desired results.

Thus, as with process measures, the measurement of structural factors can lead to problems. In some cases process measures are coupled to structural factors, compounding the problem. For example, service requirements (a process measure), created to ensure accessibility of adequate library materials to users, can cause overemphasis on use of standard book lists (a structural factor) to assess collection adequacy. Such reliance on standard book lists can lead to "extravagant increases in the library's acquisition of new titles, and accomplish little or nothing by way of increasing actual patron satisfaction."[20] Put another way, "The criterion by which libraries must be judged is not their size but their service....Librarians need to be constantly reminded that they are supposed to be serving users, not books, shelves, catalogs, or buildings."[21]

Neither library administrators nor the management of the library's parent institutions have given the librarians any incentive to think in terms of user needs. In fact, some structural factors imposed by the parent institu-

tion can be detrimental to library effectiveness. For example, the mandate of university administrations instituting branch libraries can merely scatter the collection without resulting in better service. This implies at the very least that, in addition to structural criteria, other criteria must be selected for examination when assessing library effectiveness.

Who Does the Assessing?

Each of these ways of viewing a library, through the study of the library's goals, its processes, or its structures, provides a unique framework with which to measure library effectiveness. It stands to reason, therefore, that different interest groups associated with the library may have their own preferred framework based on what is significant to each group. For example, library directors can be assumed to be concerned about structural criteria of effectiveness because they have significant control over structural attributes. Staff members, on the other hand, are probably more interested in processes. They are the ones doing the work of the library, and they are usually judged by how well they carry out their assigned tasks. "Even professionals who are granted discretion in their choice of activities will usually prefer to be evaluated on the basis of process measures—their conformity to standards of good practice."[22]

Similarly, patrons of the library are likely to focus on goals, both as overall objectives or intentions of library service (ends sought) and as actual measurable performance outcomes of that service (performance criteria). Not only will the users focus on the tangible ends of library service, but the priorities of the various library services will be defined in terms of each user's own immediate needs and expectations. Theoretically, there could be an infinity of desired end states. The value judgements of users concerning what goals (short-term) the library should have and the efficacy of service received can lead users to hold widely varying attitudes concerning the effectiveness of a given library.

A final group, called (for lack of a better label) "society at large," is more likely to move beyond the judging of short-term performance. Societal groups, such as funding agencies, accrediting bodies, etc., are likely to adopt more long-term perspectives. Their interests will be reflected in such questions as: Does the library have the right goals? Is the library doing the right things? Is it focusing on the appropriate problems? Is the community as a whole benefiting from its services?

Thus, four major constituencies can be identified for any library. Each major constituent group has its own preferred ways of reviewing library

effectiveness. No single constituent perspective is adequate, but together they provide a basis for a comprehensive approach toward measuring library effectiveness. What is needed is a flexible way to integrate the different viewpoints. Such flexibility can be obtained through use of the contingency approach to viewing library effectiveness. The contingency approach reflects the notion that there is no universal standard set of inputs, processes or outputs that constitutes an effective library. Rather, what constitutes a "good" library will depend on the individual library's contingencies, e.g., what is being assessed, who is doing the assessing, and how the assessment is being made.

GOALS AND LIBRARY EFFECTIVENESS

In examining the factors related to library effectiveness in the preceding section, it becomes apparent that the concept of goals is of central importance. When the preceding discussion is coupled to some basic tenets of human psychology, goals become an overriding issue. The relation of psychological concepts to the study of libraries is self-evident. Libraries are human organizations, and as such are subject to whatever forces of nature cause people to act the way they do. One of the universal assumptions of psychology is that all human activity is inherently goal-directed.[23] In fact, it can be concluded that an examination of goals can serve as a starting point in any study of library effectiveness.[24] Regardless of how an effectiveness assessment is made, or who is doing the assessing, or what is being assessed, value judgments must be made about the goals of the library. Without satisfactory value judgments about the library's mission, time-consuming attempts to assess the library's effectiveness are exercises in futility. It is, indeed, the writers' perception that whatever conceptual scheme a researcher adheres to, whatever the disconnected piece of empirical research, whatever its claimed distinctiveness, or whatever conventional wisdom is related to the library, it is an understanding of libraries as goal-attaining entities that constitutes the unifying conceptualization.

Before librarians attempt to evaluate, and perhaps reformulate, the goals of their libraries, they need a consistent understanding of what goals are. The organization theory literature has thoroughly explored the issue of organizational goals and methods of relating such goals to all segments of the organization. This is achieved by defining several levels of abstraction. The highest level encompasses organizational intentions, while lower levels of abstraction are concerned with activities and outcomes.

Goals as Organizational Intentions

Organization theorists define an organization goal as "a desired state of affairs which the organization attempts to realize."[25] A deficiency of this definition is that such stated goals do not disclose much about the behavior of the organization. This deficiency has promoted a search for real or operative goals: "those future states toward which a majority of the organization's means and the major organizational commitments of the participants are directed...."[26] The most significant question to be asked in this regard is: "To what variety of ends is organizational behavior patterned and motivated?"[27]

In examining the intended ends toward which libraries move, a significant question to be considered is: the ends according to which constituency? One can respond simply by assuming that, "Organizational goals represent desired end states specified by the dominant coalition."[28] The dominant coalition comprises a cross section of constituencies (such as employees, administrators, trustees, or library users) with different and competing expectations. "Consensus about the importance of the various criteria of effectiveness is hypothesized to be a function of the relative weights that the various constituencies carry in the negotiated order which we call organization."[29] Intentions can be related to identifiable constituency groups having a stake in the library.

There are several difficulties with this kind of examination of constituency intentions: "First, it discreetly attempts to substitute for the burden of defining the goals of an organization the equally difficult task of defining the goals of a group within it. Second, it imposes another difficult and heavily burdensome chore—that of successfully defining and identifying the group that is dominant, that has power."[30] Organizational behavior cannot be fully determined by the goals of any one group. Goals are always being modified, conditions and limited by the necessity of satisfying the demands of other groups upon which the dominant coalition bases its power. Even the dominant coalition must make concessions in order to achieve its goals.

That is not to say that certain individuals or sets of individuals cannot be extremely influential, or even dictatorial. Library directors, for example, commonly are able to impose their wills upon much of the behavior of other constituencies within their libraries. The implication, however, is that the choices made by those who follow the lead of the dominant coalition is a result of consensus. Consensus reflects the tacit acceptance of the dominant coalition's intentions as a fundamental constraint on ongo-

ing activities, notwithstanding that some other alternatives might be preferred.

Thus, there evolves within the library some set of overall organizational goals. These may be explicitly stated (such as the library's mission), or they may be implicit constraints imposed by a dominant coalition. The problem to be recognized is whether or not the mission statements truly reflect the constraints under which the library is operating. This problem can be addressed by examining the outcomes of library service.

Goals as Outcomes

There is substantial agreement among organization theorists that a major component of organizational effectiveness is the idea of outcome.[31] An outcome is what an organization produces or distributes to persons or systems outside of itself. However, as already implied, there is not necessarily a correspondence between the library's stated goals (intentions) and its actual outcomes (services). There may be a strong consensus that a primary library goal is the enrichment of people's lives through alternative media use. However, an examination of major ways the library staff spends its time may show an emphasis on book processing and the reading of traditional books and magazines.

Two kinds of divergencies may result from the above situation.

> (1) A goal may rank high as an intention but be only minimally evident in activities. Such a goal we call *utopian*. This condition indicates something that the members say they are trying to attain but are doing little actually to achieve it.[32]

For example, there may be high consensus on research ("publish or perish") as a goal of academic librarians, but the librarians may be so heavily burdened with service responsibilities that they have little time for research.

> (2) A goal may be ranked low as an intention but [may] be much in evidence in activities. Such a condition indicates the presence of an *unstated goal*. Persons unaware of this goal, may be ashamed of it, or be unable or unwilling to talk about it.[33]

Such may be the case in the kind of self-censorship done by many librarians in the name of selection.

The Goal Concept Redefined

Recently, organizational theorists have recognized a basic problem which plagues much social research. The problem concerns definitions of terms

used to identify fundamental concepts and operational constructions of these concepts. It has been argued that scientific inquiry bridges two levels of analysis. The first level belongs to the world of everyday life, and explanations at this level are called first-degree constructs. The other level deals with the theoretical abstractions of the everyday occurrences as used by the social sciences. Explanations at this level are labeled second-degree constructs.[34]

This distinction is critical to our discussions of library goals and library effectiveness. The great bulk of library research has been limited to the use of first-degree constructs as explanations. The interpretation of first-degree constructs, unfortunately, is totally dependent upon the specific circumstances under which they have been used. Second-degree constructs, by contrast, are scientific abstractions with standard definitions. So far in this paper, discussion has been wholly at the first level. In an attempt to reduce some of the ambiguity of the everyday terminology used heretofore, we must adopt some abstractions concerning organizational goals.

One abstraction classifies organizational goals as being of two types: (1) a *"transitive, externally oriented, or functional goal;* and (2) a *reflexive internally oriented or institutional goal"*[35] (emphasis added). Transitive goals relate to those "intended ends" toward which organizations move. "A transitive goal is thus an intended impact of the organization upon its environment."[36] Reflexive goals relate to those inducements (money, power, status, etc.) sufficient to cause contributions to be made by those with a stake in the organization. Reflexive goals can be viewed as those ends organization members have for themselves.[37]

These two types of goals reflect the distinction between goals for motivating and directing participants and goals for evaluating organizational output. It is, in fact, very possible that goals of those who attempt to control the organization (i.e., reflexive goals) are very different from the goals of those who attempt to assess its output (i.e., transitive goals).

Transitive and reflexive goals can be further subdivided for more detailed study. One useful second-level subdivison or organizational goals adapts five main headings: output goals, adaptation goals, management goals, motivation goals, and positional goals. Output and adaptation goals are primarily transitive in nature. Output goals are those goals of the library which are reflected in some service intended to affect society. Adaptation goals reflect the need for the library to come to terms with its environment. Both output and adaptation goals reflect the need to attract patrons, to acquire monetary support, secure needed resources, and convince the parent organization of its contribution.

Management, motivational and positional goals are reflexive in nature, primarily established as concessions made to major constituencies. Management goals reflect decisions on who should run the library, the need to handle conflict, and the establishment of priorities for action. Motivation goals seek to ensure a high level of satisfaction on the part of staff and patrons, encouraging loyalty to the library. Positional goals help to maintain the position of the library in terms of the kind of organization it is (in comparison with other competing organizations and in the face of trends which could change its character).

The previous definitions should in no way imply that all libraries have all these kinds of goals. For example, if a library has little or no transitive goals, output and adaptation are not of major concern. Such a library would be a reflexive organization, i.e., basically concerned with managerial, motivational and positional factors affecting its staff. In this case, self-interest of internal constituent groups would dominate decision-making and evaluation procedures.

A GOAL MODEL OF LIBRARY EFFECTIVENESS

The review of research in the previous section of this paper reflects a multiplicity of approaches. There is a need for a framework to deal with the concepts of goals and library effectiveness in an integrated manner. Such a framework must join divergent viewpoints derived from previous research and help show where future research is needed. It should also assist library administrators and directors in identifying weaknesses in the administrative process by presenting one overall view of the library. The framework presented here includes two parts: (1) a typology of goals (classification scheme), and (2) a systems model of library effectiveness.

Goal Typology

A typology can be created using a classification scheme delineating the multitude of transitive and reflexive goals held by the library's constituencies. Such a typology should explicitly recognize the impact of the significant component factors of the dominant coalition (staff, administrators, trustees, and society at large) on the goal-setting process. Each constituency (component factor) has its own ideal preferred organizational outcomes, and each constituency exerts what influence it can to cause these outcomes to take place. These efforts, and the continuing necessity for reconciling them, create and sustain the dominant coalition, within which constituencies bargain and compromise. The preferred ordering of library

goals is established within this coalition as it accepts, rejects and redefines the goal preferences of the constituencies identified. The consensus of the coalition promotes the adoption of some goals and rejection of others. The original goals of the different constituencies are thereby combined, modified, adjusted, and shared.

The major constituencies in the dominant coalition (staff, administration and users) are presented in figure 1. Each constituency has expectations of other constituencies. Some of these expectations are competing and potentially incompatible. Some of the expectations are differentially accepted, sanctioned and represented by the dominant coalition. The expectation of one group vis à vis another can be represented through a "boundary view" as shown in figure 1. Each group has expectations (goals) for its interactions with other constituencies. These interactions could be construed as transactions across the boundaries separating the constituencies. Judgment as to the effectiveness of the transactions is based upon outcomes received as compared with prior expectations of each interacting constituent group.

The boundaries of figure 1 are amorphous to illustrate the problematic issue of defining exactly what makes up a constituency group. While it is relatively easy to define the boundaries of the library staff, it becomes increasingly more difficult to define the boundaries of the other constituencies. There could be substantial divergence of opinion concerning exactly what should be included in the definition of the administration. Does the administration consist solely of the supervisory staff and directors, or does it also include the board of trustees? The definition of "users" is similarly vague. Does the definition include only those who use the library or all those who might use it? "Society" is the most amorphous of all, encompassing all the external forces that have the potential to influence the library. The definition of the group boundaries will therefore vary from institution to institution. The conclusion to be drawn from figure 1 is that *some* boundary can be defined for each of three distinctive entities—staff, library and environment.

Given these boundaries and the transactions which can occur across the boundaries, the major goals (and corresponding performance criteria) of the constituencies can be identified. The staff has certain reflexive goals to be accommodated by the library, and the library has different reflexive goals to be achieved by the staff. Similarly, different sets of reflexive and transitive goals exist for transactions between the library and environment and between environment and the library.

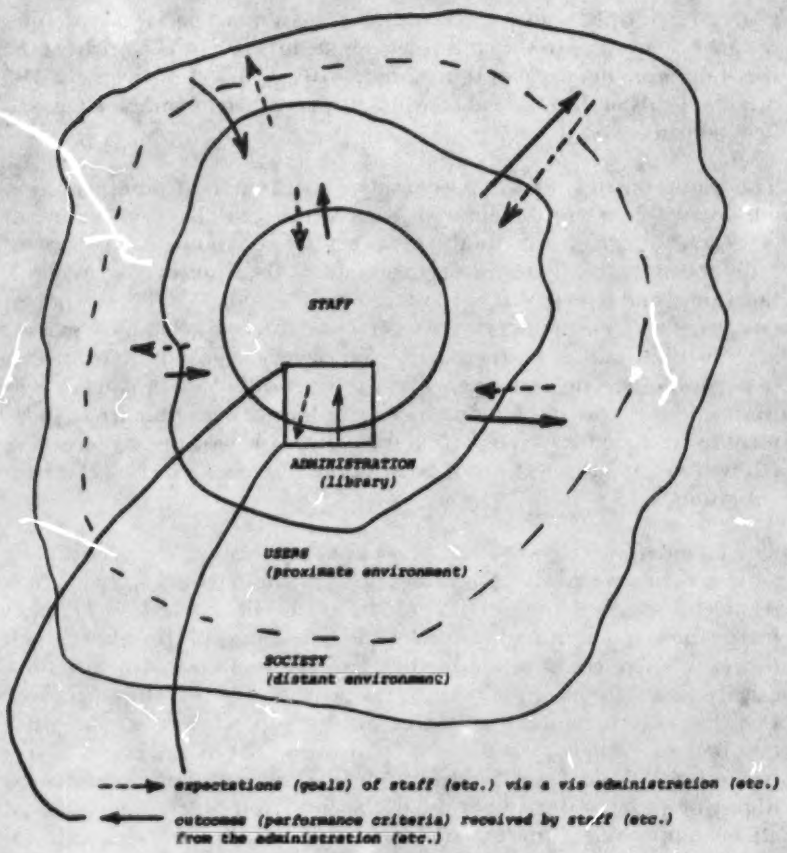

Fig. 1. Constituent Boundaries and Boundary Transactions

Complicating the concept of goals as constituency expectations is the fact that not only are goals multidimensional, they also vary across time. Most library theorists would agree that the library's goals change as the library faces new challenges. This is a rather obvious perception. However, what is not so obvious is that each constituent group can be simultaneously seeking different goals corresponding to different future time horizons. Any constituency can concurrently be concerned with very short-term expectations, with more intermediate-term expectations, and also with

distant future expectations. Hence, in addition to explicitly recognizing the boundary viewpoints of the major library constituencies, the typology must be useful for distinguishing among different goals across several time horizons. The result of these two major dimensions (boundary viewpoint and time horizon) is a matrix typology of library goals. Constituency expectations form the column headings of the typology, while the three time horizons form the row headings (see table 1).

TABLE 1
TYPOLOGY OF ORGANIZATIONAL GOALS
Boundary Transaction Viewpoints

Time Horizon	*Staff expectations of Library*	*Library expectations of Staff*	*Library Expectations of Environment*		*Environmental Expectations of Library*	
			Users (proximate)	*Society (distant)*	*Users (proximate)*	*Society (distant)*
Distant future	1	4	7 a b		10 a b	
Intermediate future	2	5	8 a b		11 a b	
Immediate future	3	6	9 a b		12 a b	
	staff	←	library boundaries	→	environment	

This typology can be used as a pragmatic tool in aiding libraries to identify the major goals of their constituencies. Once goals have been identified, each library can "fill in" the typology with criteria of effectiveness representing the goals appropriate to each cell of the typology matrix. The criteria adopted by any one library will depend upon the unique characteristics of its major constituencies. The typology thus provides, in effect, an organized checklist ensuring that the viewpoints of each major library constituency have not been ignored.

The use of this matrix does not mean that every library must develop goal statements for every cell of the typology. Each library should identify its own important constituencies. This may necessitate use of the complete typology (12 major cells, 6 with subdivisions) or the library may use a truncated version of the typology. For example, a prison library run by, and for, the inmates might only be concerned with six cells of the matrix (1, 2, 3, 10a, 11a, and 12a). To further illustrate use of the typology matrix, let

us assume that it is to be utilized by the director of a large academic research library. The component constituencies of such a library would probably necessitate use of the complete typology (all 18 major and minor cells). A transitive goal appropriate to cell 12a could be providing research materials for the university faculty. Expectations related to this goal might be: (1) that the library's collection include all seminal works related to faculty research interests, and (2) that the collection be up to date. Measurement criteria used to assess the library's success in fulfilling these expectations might include: the number and kind of interlibrary loan requests and the percentage of acquisition requests filled. Similarly, a reflexive goal derived for cell 3 could address staff salaries. A staff expectation is likely to encompass competitive and equitable salaries. A standard against which these expectations can be measured could be derived from community salary survey data. Whether or not the library's salaries are above the median salary paid for comparable jobs would be one possible standard.

As a result of this process, a list of goals can be developed and associated with each typology cell. Once this has been done, appropriate performance criteria can be developed for each goal listed.

To provide a starting point for potential users of the typology, a "typology of performance issues" has been developed (see table 2). The cell entries of this typology identify some general concerns which a library could use to develop specific goals and performance criteria. The matrix is not meant to be exhaustive.

Systems Model of Library Effectiveness

"In attempting to take into account the variety of goals and ordering them according to a system of priority (obviously some goals are not as important as others), one might suggest the possibility of obtaining some kind of effectiveness *profile* for an organization. An effectiveness profile of a library (or indeed of any organization) would be a valuable descriptive and diagnostic tool."[38] Use of the typology just discussed is the significant first step in the development of such a profile. By helping to identify library goals, both transitive and reflexive, the typology can be used as input to a systems model of library effectiveness. A systems model could illustrate how goals affect the library's day-to-day operation and ultimate effectiveness. A systems model is needed to provide the overall framework for assessing effectiveness by uniting goals with library processes and evaluation procedures.

TABLE 2
Typology of Performance Issues
Boundary Transaction Viewpoints

Time Horizon	*Staff–Library*	*Library–Staff*	*Library–Environment*		*Environment–Library*	
			Users	*Society*	*Users*	*Society*
Distant	retirement achievement	innovation	Growth 1) new classes of patrons for new services	survival	innovative services for new patron types	valuable contribution (value received exceeds resources used)
Intermediate	recognition challenge status	loyalty	growth 2) new patrons for present services	flexibility adaptability	expanded new services for existing patron types	quality
Immediate	pay, job satisfaction	productivity efficiency	service useage	funding	efficiency of service	efficiency of resource utilization
	staff	←	library boundaries	→	environment	

The model presented here consists of six phases, each defining a different type of activity engaging the library's major constituencies. The six phases of the model include: (1) transitive goal formation, (2) service definition, (3) resource acquisition, (4) reflexive goal formation, (5) service operations, and (6) evaluation (see figure 2).

Formulation of the library's transitive goals is a natural starting point from which to initiate the model. The library administrators and society representatives (e.g., funding agencies, citizen groups, etc.) interact to identify potential user groups and their needs. Transitive goals are developed and are often presented as "mission statements." The processes involved in this stage have been previously discussed at length, and need no further elaboration here.

Once the basic missions (transitive goals) have been established, services are identified (phase two) which will enable the library to fulfill its mission. This is done mostly by library administrators who also define what resources (funds, books, building, staff, etc.) will be needed to provide these services. User representatives and societal agents may also participate in these activities.

The third phase, resource acquisition, has the library intensively interacting with the environment. In this phase the library accumulates funds,

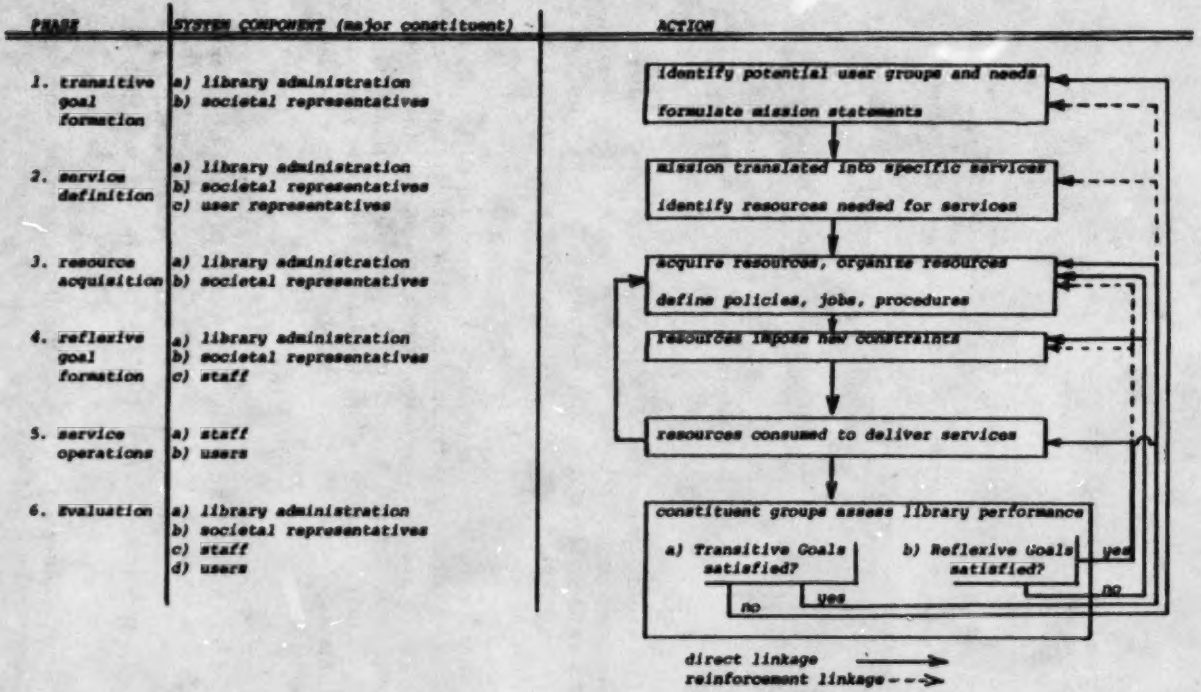

Fig. 2. Systems Model of Library Effectiveness

materials (books, etc.), facilities, equipment, and staff. Library administrators bargain, barter, purchase, and negotiate with societal representatives (funding agents, contributors, vendors, and potential employees). Additionally, administrators organize the resources by departmentalization to provide the myriad services previously decided upon. Organizing, of necessity, becomes a detailed and meticulous process of promulgating policies, defining job requirements, and determining operating procedures.

Often, while the library administrators are conducting the "negotiations" of phase three, compromises must be made. These compromises place added restrictions upon the library and the constraints become, in effect, reflexive goals. The model isolates reflexive goals because of the importance which they can attain; in reality, however, phase four (reflexive goal formation) occurs concurrently with the resource acquisition phase.

Once resource acquisition and organizing have been completed, the library is in a position to provide services to its users. The service operations phase, however, consumes the previously accumulated resources. Hence, the library is continuously having to replenish its resource base. The model illustrates this feature as a circular process, with the library cycling endlessly through phases 3, 4, and 5.

Library effectiveness assessment is the product of the last phase, evaluation. During this phase, the various constituents "look back" and determine whether or not their goals have been met satisfactorily. When transitive goals are satisfied, the activities of the "resource acquisition" and service operation phases receive, in effect, a "stamp of approval." In addition, the decisions made during the transitive goal formation and service definition phases are also reinforced as correct. When transitive goals are not satisfied, the library must return to phase one and repeat the entire process (phases 1-6) to discover the cause(s) of failure to satisfy the goals. In a similar manner, satisfied reflexive goals impact approval directly to the service operations phase and indirectly to resource acquisition and reflexive goal formation phases. Unsatisfied reflexive goals may necessitate a search for alternative resources (implying the elimination of the current goal), reorganization, etc., or a redefinition of the unsatisfied goals.

CONCLUSION

The systems model coupled with the goal typology can provide library administrators with particularly useful diagnostic tools. These tools en-

able library administrators to give attention to all those forces that impact on library effectiveness. Library administrators can become proactive, rather than reactive, molding forces to meet the library's needs, rather than responding only to problems as they occur.

The devices discussed here provide administrators with methods whereby they can more accurately assess the important problems and issues of their organizations. They give administrators the choice between using outmoded management styles or the modern management technology presented here. Such a "management technology" permits administrators to abandon the primitive "band-aid" approaches in favor of systematic planning models. Adopting such an up-to-date management tool should impact dramatically on library effectiveness.

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